U.S.S.N.: 08/480,850 Filed: June 7, 1995

SIXTH AMENDMENT AND RESPONSE TO OFFICE ACTION

Objection to Claims 7-8, 16 and 18-21

Claims 7, 8 and 16 have been amended to include the appropriate Sequence ID Number, as requested by the Examiner.

Rejection of Claims 7-8, 16 and 18-21 Under 35 U.S.C. §102(b) or §103(a)

The Examiner has rejected Claims 7-8, 16 and 18-21 under 35 U.S.C. §102(b) as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as being obvious over Sanchez-Martinez, D. *et al.* ("Amer. Soc. for Vir.", Annual Meeting, London, Ontario, 1989). Applicants respectfully traverse this rejection for the reasons set forth below.

The Examiner states that the reference shows recombinant herpes simplex virus gG-1(HSV-1) and herpes simplex virus gG-2(HSV-2) glycoproteins produced using a baculovirus transfer vector. In addition, the Examiner states that this reference describes a method for expression of HSV-1 and HSV-2 glycoprotein G in insect cells by using a baculovirus transfer vector showing all the claim language limitations except for describing the properties of the HSV-1 and HSV-2 glycoproteins produced.

Applicants respectfully submit that the reference cited by the Examiner was not a publication and, furthermore, was not an enabling disclosure of the claimed gG-1 or gG-2 antigens.

As described in the attached Declaration Under 37 C.F.R. §1.132, Dr. Sanchez-Martinez attended the American Society for Virology Annual Meeting in London, Ontario, Canada on July 10, 1989, and gave a presentation on the Applicants' research. Prior to giving the presentation, applicants completed an abstract form and sent it to Dr. R. Luftig, the Program Chairman for the American Society for Virology. The abstract was not intended for publication. In fact, on the document itself, the form states, "Abstracts will not be published." Therefore, applicants respectfully submit that the abstract was not a publication.

Applicants further submit that they made no disclosure of the claimed invention more than one year before the original filing date of the present application. Both the abstract and the very brief ten-minute presentation given by Dr. Sanchez-Martinez at the meeting on July 10, 1989 described the **results** of production of gG-1 and gG-2 by merely inserting the gG-1 and gG-2 genes in place of the polyhedrin gene in a baculovirus transfer vector. The methodology used to obtain these results was **not described**. More importantly, however, neither the short abstract nor the brief presentation described the need to remove the nucleotides between the PstI cut and the BamHI cut or described the need to insert the synthetic oligomer CTATAAATATG in front of the

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gG-1 or gG-2 gene, both of which are critical to achieve the AcDSMgG-1 and AcDSMgG-2 vectors. The claimed antigens are produced in a baculovirus that has the full 5' non-translated leader sequence of the polyhedrin gene joined to the coding region of a foreign gene precisely at the translation initiation codon of the native polyhedrin, and neither omits any nucleotide from initiation codon nor introduces any extraneous nucleotides at the initiation codon site. This recombinant baculovirus is capable of highly efficient transcription and translation of foreign genes and expression of novel proteins within a baculovirus system. Therefore, the teaching of the abstract and presentation cited by the Examiner results in the production of the gG-1 and gG-2 antigen as produced using the known baculovirus vectors Ac373'gG-1 and Ac373'gG-2, not the novel vectors AcDSMgG-1 and AcDSMgG-2. Therefore, Applicants respectfully assert that the cited reference could not have been an enabling disclosure describing the production of the gG-1 and gG-2 antigens using the novel vectors of the present invention. As described in the previously submitted Declaration by Philip E. Pellett Under 37 CFR §1.132, the novel vectors result in a higher level of expression and the production of recombinant proteins that are structurally different from those produced using the known baculovirus vectors. Thus, the Applicants respectfully request that the rejection of the claims under 35 U.S.C. §102(b) or in the alternative, under 35 U.S.C. §103(a), be withdrawn.

CONCLUSION

Applicants respectfully submit that the claims are in condition for allowance. A Notice of Allowance is therefore respectfully solicited. If the Examiner believes any informalities remain in the Application which can be corrected by Examiner's amendment, or whether any other issues can be resolved by telephone interview, a telephone call at the undersigned attorney at (404) 949-2473 is courteously solicited.

Respectfully submitted,

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